Persistent Self-Mutilation Following Surgical Procedures

PAUL A. GLIEBE, M.D., and LEON GOLDMAN, M.D., *San Francisco*

SUMMARY

Conscious and unconscious need for continued punishment may complicate the postoperative course of surgical procedures if the patient seeks to satisfy that need by preventing the healing of the operative wound. Recognition of the underlying emotional factors is difficult, and often delay leads to chronic states of invalidism with its attendant social and economic loss.

ACTUAL or threatened self-mutilation often accounts for admission of patients into a hospital. From the viewpoint of the surgeon, the care of these patients involves no immediate technical problems other than the speedy repair of injured structures, or perhaps that intervention made necessary by more extensive internal hemorrhage. Postoperatively, the emotional reactions of these patients undergo striking changes. From the original attitude of profound depression, tension and remorse, they emerge with a light-heartedness and a gratefulness of living that is in sharp contrast to their former state of dejection. It would appear from even the most superficial questioning that the pain and inconvenience suffered were in payment of a hostile and aggressive thought or act. The diagnosis of reactive depression in a hysterical personality is therefore appended to a patient's chart to satisfy the demands of the statistical record. In no manner does such a diagnosis give an inkling as to the dynamics underlying the real motives for mutilation or attempted suicide. Menninger[4] discusses self-mutilation as focal or partial suicide and has forcefully demonstrated that the psychological motives and implications attending total self-destruction are operative in most, if not all, instances of self-mutilation.

Self-mutilation, as well as self-flagellation, serves both conscious motives and unconscious demands. On the one hand, it permits the display of aggressive tendencies and on the other hand serves as an immediate source of self-punishment and reproach. In the field of dermatology where neurotic excoriations or self-induced eruptions make up a considerable portion of practice, this dual function has been recognized for some time. Netherton[6] and, more recently, Michelson[5] and Lynch[1] have assigned as motivation for these conditions repressed internally directed rage and resentment. These authors describe two types of patients: (1) those having preexisting dermatoses who, out of habit, continuously aggravate the lesion, and (2) those who, for unconsciously determined reasons, mislead the dermatologist in his efforts and thereby prolong their pain, suffering and disfigurement. Viewed critically, this is a most equivocal separation of entities which basically have in common pain and disfigurement.

Analogies can be made between self-induced skin excoriations and scars incurred by surgical operations. However, one obvious exception is that the latter is attained with the aid of a second person; namely, the surgeon. The surgeon becomes the punitive agent who may be employed repeatedly for multiple surgical procedures in order to satisfy an almost boundless masochistic drive. These masochistic drives frequently stem from early childhood, and their source is likely to be found in the interpersonal relationships within the family constellation. Rather consistently, the parents of these patients are strict, uncompromising and punitive, and give little if any real affection. In consequence, attention or sympathetic understanding is achieved through illness or by seeking out a role for which punishment and pain are the price.

What precisely incites self-mutilation in a postoperative course is not known, but many immediate factors are assumed to be involved. One hesitates to guess as to the predictability of self-mutilation preoperatively, for even in most striking instances it is difficult enough to recognize the mutilation postoperatively. In our case material it was noted that frequent surgical experiences associated with stormy, prolonged postoperative courses suggested the hysterical type of personality with its need for masochistic satisfaction. We cannot answer with any satisfaction or accuracy why one patient had multiple operations with periods of comparative well-being, and the other undertook self-mutilation following an indicated procedure. In each of our cases the cost of hospitalization was catastrophic, and for the families involved the experience proved to be a strain emotionally and financially.

In the cases cited it is indeed difficult to distinguish which elements were consciously determined and which were attributable to unconscious material. One can be reasonably sure that in almost every neurotic reaction there is some secondary gain to the illness, and an element of malingering is therefore present. However, as pointed out by Menninger, malingering has a characteristic feature which sets it apart from other forms of self-mutilation; namely, striking directness of its aggressive purpose. He states

From the Division of Psychiatry, Langley Porter Clinic, and the Division of Surgery, University of California Medical School, San Francisco, and the Department of Public Health of San Francisco, California.

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further that in order to utilize the secondary gain of the illness the patient will be uncooperative with the physician whose efforts are primarily directed toward his recovery. The patient then is caught between two opposing forces that operate to his mental disadvantage and to the discomfiture of the physician.

It is hardly of academic value, then, to try to distinguish malingering from a hysterical reaction, and basically both should be considered interaction between aggression and punishment.

CASE REPORTS

CASE 1. A 21-year-old female, a graduate student in bacteriology, first entered the University of California Hospital on April 2, 1937. One week before entry the patient had had a Schick test on the volar aspect of the right arm which was followed by a moderate reaction. Two days before entry she noticed that the area had become markedly reddened and painful and there were associated chills and fever. These symptoms persisted until the patient entered the hospital.

On admission, the temperature was 38.5° C., pulse rate was 100. Examination of the right arm showed a crusted central area about 1 cm. in diameter surrounded by an area of cellulitis. There was early abscess formation measuring about 8 cm. in diameter. Two days after hospitalization an incision was made and a small amount of pus and necrotic tissue removed from which hemolytic staphylococcus aureus was cultured. The patient was discharged from the hospital, improved, four days after admission.

Nine days later the patient again entered the hospital because of recurrence of the cellulitis on the right arm. On entry, the temperature was 37.5° C. There were no signs of toxicity. Despite the usual therapy the area of cellulitis increased and the patient developed a septic fever, ranging as high as 41.4° C. at the end of the first week. The area of cellulitis became indurated and localized to an area about 6 cm. in diameter. The fever persisted, however, and repeated examinations revealed no additional findings. The patient had occasional chills followed by an elevation in temperature and she continued to complain of severe headache and photophobia. Examination revealed a mild stiffness of the neck with accentuated deep reflexes equal on both sides. An atypical Babinski reflex was present on the left. The leukocyte count fluctuated from 4,500 to 13,500 with only slight increase in polymorphonuclear cells. A lumbar puncture showed a pressure of from 230 to 300 mm. of water, but the cell count, globulin, colloidal gold and Wassermann reactions were all normal. Spinal fluid sugar content was within normal limits. Repeated blood cultures showed no growth. A diagnosis of acute encephalitis was strongly considered but never proven. After being in the hospital for approximately three weeks, the patient became afebrile and was discharged entirely recovered.

The patient reentered the hospital for the third time five months later. She stated that she had accidentally cut the dorsal surface of her right forearm with a mirror which broke in her hands. The wound, which was about 5 cm. in length, had been sutured at the emergency hospital. On inspection several pieces of glass were palpated under the skin. The wound was opened and the spicules of glass were removed. Forty-eight hours later additional spicules of glass were removed. The patient developed acute cellulitis around the wound and because it was thought from her past history that she had increased susceptibility to infection, she was kept in the hospital for precautionary measures. The day before intended discharge from the hospital the patient's temperature rose to 39° C. and the pulse rate to 120, although the mild inflammatory reaction had subsided. There was crepitation about the wound extending up the forearm and the midportion of the upper arm. Smears were taken and, although no Welch's bacilli were seen, a diagnosis of anaerobic infection was made. Incisions were made into the forearm and upper arm and subsequently irrigated with Dakin's solution. Anaerobic antiserum was administered intravenously. Two weeks after the incisions were made, secondary closure was accomplished. This healed without difficulty and approximately one month after entry the patient was discharged.

She was seen again three days after discharge because of marked trismus of the jaw, stiffness of the neck and rigidity of muscles of the arms, legs and back. Motions of the neck were notably limited. A noticeable bilateral Kernig sign was demonstrated and the deep reflexes were hyperactive. There was no clonus or Babinski sign. There were definite signs of meningismus in addition to the hypertonicity of the muscles and trismus suggesting tetanus. The spinal fluid showed normal pressure; the Pandy test, cell count and gold curve were within normal limits. However, the patient was treated for tetanus. She left the hospital on the eleventh day considerably improved.

Two weeks after discharge the patient entered the hospital for the fourth time because of acute cellulitis of the right forearm and axilla. There was a tender area in the right axilla which was abscessed. On draining the abscess a spicule of glass was found in the cavity. The area of cellulitis in the forearm did not improve but seemed to remain stationary. Nine days after entry the patient had a chill and her temperature rose to 40.4° C. With the use of the usual measures, the temperature finally dropped and the patient was afebrile for about ten days. She was discharged five weeks after entry.

She returned to the hospital for her fifth entry about six weeks later, stating that the day before entry she had developed red blotches over the chest, arms and legs, and had had fever and chills. The temperature on admission was 37.6° C. There were erythematous areas over the chest, upper and lower extremities, and subcutaneous emphysema was discernible in the involved region. The patient became afebrile within 48 hours and although she had had a bout of severe enteritis for several days associated with nausea and vomiting, she was discharged from the hospital ten days after entry. The symptoms had completely disappeared within three or four days.

It was during this last entry that it was possible for the first time to break down the patient's psychological resistance. (Unsuccessful attempts had been made during previous hospital admissions.) The patient confessed that one day, while sitting at her desk in high school, she yawned and extended her arm and accidentally touched a hot steam radiator with the back of her wrist. She involuntarily withdrew her arm, but because she experienced such a pleasant sensation, she immediately placed her wrist on the radiator again. The patient also stated that during a course of anatomy she intentionally incised the back of her right wrist on two occasions because of the pleasant sensation experienced. Thereafter, whenever cellulitis subsided she would cause recurrence by vigorously massaging it. Very often this was followed by a chill and marked hyperpyrexia. She mentioned that some of the symptoms which suggested encephalitis were actually voluntarily produced and added that when she did not have fever she placed the thermometer in warm water. The laceration on the right forearm supposedly produced by a broken mirror was made deliberately with a scalpel, and after the wound had been sutured she

had pushed the spicules of glass under the skin. When the wound was opened and the spicules removed, she had kept the spicules as "souvenirs" and later reinserted them into the subcutaneous fat. She later milked three of these spicules up into the axilla from the forearm and wrist and received the same gratifying pleasurable sensation.

The episode in which crepitation was found in the forearm and upper arm was produced by injecting air under the skin with a luer syringe; the temperature reading was produced by dipping the thermometer in warm water. When the entire upper extremity was opened widely on the suspicion of gas bacillus infection, she was rather gratified and claimed that even the dressings (which would ordinarily be painful to someone else) were a pleasant experience to her. She explained the episode of "tetanus" by stating that she actually thought she was developing tetanus, and in order to make sure she would be treated thoroughly, produced all the signs and symptoms of tetanus.

During the last hospital admission the patient claimed that she rubbed sandpaper over her skin and injected air underneath the skin in order to simulate a gas bacillus infection. At the same time she swallowed a boxful of sulfonamide tablets in an attempt to commit suicide, thinking she would be "signed out" as having a gas bacillus infection which would not carry stigma or disgrace to her family. Because this suicide attempt was not successful, she drank a bottle of rubbing alcohol when the nurse's back was turned and produced the violent gastroenteritis bout.

CASE 2

CASE 2. A 33-year-old, white, single female, a medical secretary and technician, was admitted to the University of California Hospital on November 15, 1945. Six months prior to entry she had had the left long saphenous vein ligated. Shortly thereafter infection and ulceration appeared in the groin at the site of operation. The ulcer spread rapidly in spite of the usual treatment and soon involved the entire anterior abdominal wall. In the course of 11 months, the patient had multiple surgical procedures (excision of undermined areas and skin grafts) and had received local and parenteral penicillin, streptomycin, activated zinc peroxide, Dakin's solution, furacin, and other medication. Undermining tunnels would develop with regularity under the skin edges. At no time did bacteriological studies reveal the symbiotic organisms diagnostic of phagedenic ulcer or the microaerophilic streptococci seen in chronic undermining ulcer as described by Meleney.[2, 3]

Because of increasing irritability, unmanageable behavior and threat of suicide, the patient was transferred to the psychiatric ward of the San Francisco Hospital. Investigation revealed a forceful, aggressive, and opinionated woman who had been "on her own" since the age of 15. Her father, a kind and affectionate person, was accidentally killed when she was five years of age. Her mother, burdened with five children, had had little time for "affection but saw to it that we ate." As long as she could remember, she had been "attached" to her only brother, five years her senior, and it was quite clear that he acted the role of the father. All her life she had resented her younger sister because of the latter's attractiveness, social success and marriage. The sister was the favorite in the family, and by contrast our patient "had to fight for acceptance and approval." The patient was particularly conscious of her obesity. Her weight between the ages of 15 and 30 years ranged between 250 and 325 pounds.

The patient left her home at the age of 15 and worked as a domestic in the household of physicians. With encouragement, she took courses in medical secretarial work and, in addition, studied to be a surgical technician. She had always been "interested in anatomy" since an appendectomy at 16 years of age, and her interest was enhanced further by four separate operations for the removal of glass particles from the palm of her right hand. These episodes were incurred "accidentally" during chemistry experiments. She had had virus pneumonia in November, 1943, and during convalescence had developed hysterical aphonia which cleared in three weeks' time. In the following spring she had lobar pneumonia and again was aphonic. She had aphonia for the third time in June, 1945, when she was hospitalized.

In her personality makeup she tended to be shy and sensitive. Meeting people was "painful" and she felt that her relationships with people were handicapped by her obesity. She always tried to do more than was expected of her so that she would be placed in a position of responsibility. She had been dependent upon others only to the extent of requiring recognition for her work, and was otherwise independent. The patient revolted against being powerless due to hospitalization, and was most annoyed at not being given a voice in the administration of her treatment.

The impression of the psychiatric staff was that the patient had a hysterical character with strong masochistic drives. As she was not psychotic, she was referred to the surgical ward of the San Francisco Hospital.

Although she was under continuous observation, the hemorrhages from the ulcerations were so severe that repeated transfusions of whole blood were necessary to correct the anemia which developed. Because there was no improvement, on July 17, 1947, the patient was placed in a single hip spica cast extending from the shoulders to the lower leg. When the cast was removed on August 19, 1947, all areas of former ulceration were filled with granulation tissue or covered by epithelium, except for a small area 2 inches away from the cast in the right lower quadrant which could have been traumatized by the patient's movements. A second body cast was applied which gave even greater restraint. The patient reacted to this with violent verbal abuse, threats of suicide, and outbursts against the physician and nursing staff. The threats of suicide were frequent and were followed by periods of great remorse and contrition. On many occasions the patient was observed in an attempt to reach and irritate the ulcer with tongue blades or any other instrument available. The patient was discharged from the hospital fully recovered from the self-inflicted ulcerations. Psychiatrically, she continued to the end to defy everyone in the most obscene terms and at no time did she acknowledge her role in the affair.

DISCUSSION

When self-mutilation is considered in the broader sense, as proposed by Menninger, to include multiple operations and purposive accidents, then some consideration must be exercised by the surgeon in choosing his operative material. Apparently the only significant index is a history of emotional disturbances, but the frequency of these makes the problem even more complex. Again, the surgeon himself hardly has a choice in the matter when he is confronted by a problem which, in his best judgment, requires surgical intervention. The surgeon is accustomed by his training to give relief from suffering, and it is entirely foreign to him even to imagine that the patient might mislead him for the sake of the pain needed psychologically. This deception on the part of the patient accounts for the hostility and resentment that the surgeon then turns upon the patient.

The patients in whom self-mutilation occur are notoriously cunning and secretive, and in the two cases cited the factual psychological material was elicited many months after the initial surgical procedure. The dermatologist, on the other hand, is keen to recognize in the original examination evidence of self-mutilation and his immediate treatment is based on those findings. The surgeon and the psychiatrist should strive to attain that degree of diagnostic acumen.

From the material presented one may assume that in addition to the fulfillment of aggressive drives, and the need for self-punishment, a measure of erotic satisfaction was likewise obtained. This fact was verbalized in the first case, and in the second case the physical movements and gyrations followed by relaxation were clearly suggestive. This interpretation was given but was vigorously denied by the patient.

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